



PCT09

ENTERED

RAW SEQUENCE LISTING
 PATENT APPLICATION: US/09/673,735

DATE: 10/23/2002
 TIME: 16:15:35

Input Set : A:\dorken.txt
 Output Set: N:\CRF4\10232002\I673735.raw

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3 <110> APPLICANT: DORKEN, Bernd
4     RIETHMULLER, Gert
5     KUFER, Peter
6     LUTTERBUSE, Ralf
7     BARGOU, Ralf
8     LOFFLER, Anja
10 <120> TITLE OF INVENTION: CD19XCD3 SPECIFIC POLYPEPTIDES AND USES THEREOF
12 <130> FILE REFERENCE: 028622/0102
14 <140> CURRENT APPLICATION NUMBER: US 09/673,735
15 <141> CURRENT FILING DATE: 2000-12-27
17 <150> PRIOR APPLICATION NUMBER: PCT/EP99/02693
18 <151> PRIOR FILING DATE: 1999-04-21
20 <150> PRIOR APPLICATION NUMBER: EP 98107269.7
21 <151> PRIOR FILING DATE: 1998-04-21
23 <160> NUMBER OF SEQ ID NOS: 13
25 <170> SOFTWARE: PatentIn version 3.1
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28 <211> LENGTH: 36
29 <212> TYPE: DNA
30 <213> ORGANISM: Artificial Sequence
32 <220> FEATURE:
33 <223> OTHER INFORMATION: Primer
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40 <211> LENGTH: 30
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53 <212> TYPE: DNA
54 <213> ORGANISM: Artificial Sequence
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63 <210> SEQ ID NO: 4
64 <211> LENGTH: 39
65 <212> TYPE: DNA

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66 <213> ORGANISM: Artificial Sequence
68 <220> FEATURE:
69 <223> OTHER INFORMATION: Primer
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89 <212> TYPE: DNA
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92 <220> FEATURE:
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100 <211> LENGTH: 48
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102 <213> ORGANISM: Artificial Sequence
104 <220> FEATURE:
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| | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 139 | gct | aca | ggt | gtc | cac | tcc | gac | tac | aaa | gat | gat | gac | gat | aag | gat | atc | 97 |
| 140 | Ala | Thr | Gly | Val | His | Ser | Asp | Tyr | Lys | Asp | Asp | Asp | Asp | Lys | Asp | Ile | |
| 141 | 15 | | | | | 20 | | | | 25 | | | | | | | |
| 143 | cag | ctg | acc | cag | tct | cca | gct | tct | ttg | gct | gtg | tct | cta | ggg | cag | agg | 145 |
| 144 | Gln | Leu | Thr | Gln | Ser | Pro | Ala | Ser | Leu | Ala | Val | Ser | Leu | Gly | Gln | Arg | |
| 145 | 30 | | | | 35 | | | | | 40 | | | | 45 | | | |
| 147 | gcc | acc | atc | tcc | tgc | aag | gcc | agc | caa | agt | ggt | gat | tat | gat | ggt | gat | 193 |
| 148 | Ala | Thr | Ile | Ser | Cys | Lys | Ala | Ser | Gln | Ser | Val | Asp | Tyr | Asp | Gly | Asp | |
| 149 | | | | 50 | | | | | 55 | | | | | 60 | | | |
| 151 | agt | tat | ttg | aac | tgg | tac | caa | cag | att | cca | gga | cag | cca | ccc | aaa | ctc | 241 |
| 152 | Ser | Tyr | Leu | Asn | Trp | Tyr | Gln | Gln | Ile | Pro | Gly | Gln | Pro | Pro | Lys | Leu | |
| 153 | | | | 65 | | | | | 70 | | | | | 75 | | | |
| 155 | ctc | atc | tat | gat | gca | tcc | aat | cta | ggt | tct | ggg | atc | cca | ccc | agg | ttt | 289 |
| 156 | Leu | Ile | Tyr | Asp | Ala | Ser | Asn | Leu | Val | Ser | Gly | Ile | Pro | Pro | Arg | Phe | |
| 157 | | | 80 | | | | | 85 | | | | 90 | | | | | |
| 159 | agt | ggc | agt | ggg | tct | ggg | aca | gac | ttc | acc | ctc | aac | atc | cat | cct | gtg | 337 |
| 160 | Ser | Gly | Ser | Gly | Ser | Gly | Thr | Asp | Phe | Thr | Leu | Asn | Ile | His | Pro | Val | |
| 161 | 95 | | | | | 100 | | | | | 105 | | | | | | |
| 163 | gag | aag | gtg | gat | gct | gca | acc | tat | cac | tgt | cag | caa | agt | act | gag | gat | 385 |
| 164 | Glu | Lys | Val | Asp | Ala | Ala | Thr | Tyr | His | Cys | Gln | Gln | Ser | Thr | Glu | Asp | |
| 165 | 110 | | | | 115 | | | | | | 120 | | | | 125 | | |
| 167 | ccg | tgg | acg | ttc | ggt | gga | ggg | acc | aag | ctc | gag | atc | aaa | ggt | ggt | ggt | 433 |
| 168 | Pro | Trp | Thr | Phe | Gly | Gly | Gly | Thr | Lys | Leu | Glu | Ile | Lys | Gly | Gly | Gly | |
| 169 | | | | 130 | | | | | 135 | | | | | 140 | | | |
| 171 | ggt | tct | ggc | ggc | ggc | ggc | tcc | ggt | ggt | ggt | ggt | tct | cag | gtg | cag | ctg | 481 |
| 172 | Gly | Ser | Gly | Gly | Gly | Gly | Ser | Gly | Gly | Gly | Gly | Ser | Gln | Val | Gln | Leu | |
| 173 | | | | 145 | | | | | 150 | | | | | 155 | | | |
| 175 | cag | cag | tct | ggg | gct | gag | ctg | gtg | agg | cct | ggg | tcc | tca | gtg | aag | att | 529 |
| 176 | Gln | Gln | Ser | Gly | Ala | Glu | Leu | Val | Arg | Pro | Gly | Ser | Ser | Val | Lys | Ile | |
| 177 | | | 160 | | | | | 165 | | | | 170 | | | | | |
| 179 | tcc | tgc | aag | gct | tct | ggc | tat | gca | ttc | agt | agc | tac | tgg | atg | aac | tgg | 577 |
| 180 | Ser | Cys | Lys | Ala | Ser | Gly | Tyr | Ala | Phe | Ser | Ser | Tyr | Trp | Met | Asn | Trp | |
| 181 | 175 | | | | | 180 | | | | | | 185 | | | | | |
| 183 | gtg | aag | cag | agg | cct | gga | cag | ggt | ctt | gag | tgg | att | gga | cag | att | tgg | 625 |
| 184 | Val | Lys | Gln | Arg | Pro | Gly | Gln | Gly | Leu | Glu | Trp | Ile | Gly | Gln | Ile | Trp | |
| 185 | 190 | | | | 195 | | | | | 200 | | | | | 205 | | |
| 187 | cct | gga | gat | ggt | gat | act | aac | tac | aat | gga | aag | ttc | aag | ggt | aaa | gcc | 673 |
| 188 | Pro | Gly | Asp | Gly | Asp | Thr | Asn | Tyr | Asn | Gly | Lys | Phe | Lys | Gly | Lys | Ala | |
| 189 | | | | 210 | | | | | 215 | | | | | 220 | | | |
| 191 | act | ctg | act | gca | gac | gaa | tcc | tcc | agc | aca | gcc | tac | atg | caa | ctc | agc | 721 |
| 192 | Thr | Leu | Thr | Ala | Asp | Glu | Ser | Ser | Ser | Thr | Ala | Tyr | Met | Gln | Leu | Ser | |
| 193 | | | | 225 | | | | | 230 | | | | | 235 | | | |
| 195 | agc | cta | gca | tct | gag | gac | tct | gcg | gtc | tat | ttc | tgt | gca | aga | cgg | gag | 769 |
| 196 | Ser | Leu | Ala | Ser | Glu | Asp | Ser | Ala | Val | Tyr | Phe | Cys | Ala | Arg | Arg | Glu | |
| 197 | | | 240 | | | | | 245 | | | | 250 | | | | | |
| 199 | act | acg | acg | gta | ggc | cgt | tat | tac | tat | gct | atg | gac | tac | tgg | ggc | caa | 817 |
| 200 | Thr | Thr | Thr | Val | Gly | Arg | Tyr | Tyr | Tyr | Ala | Met | Asp | Tyr | Trp | Gly | Gln | |
| 201 | | | 255 | | | | 260 | | | | | 265 | | | | | |
| 203 | ggg | acc | acg | gtc | acc | gtc | tcc | tcc | gga | ggt | ggt | gga | tcc | gat | atc | aaa | 865 |

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|-----|-----|-----|-----|-----|-----|-----|----------|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|
| 204 | Gly | Thr | Thr | Val | Thr | Val | Ser | Ser | Gly | Gly | Gly | Gly | Ser | Asp | Ile | Lys | |
| 205 | 270 | | | | | 275 | | | | | 280 | | | | | 285 | |
| 207 | ctg | cag | cag | tca | ggg | gct | gaa | ctg | gca | aga | cct | ggg | gcc | tca | gtg | aag | 913 |
| 208 | Leu | Gln | Gln | Ser | Gly | Ala | Glu | Leu | Ala | Arg | Pro | Gly | Ala | Ser | Val | Lys | |
| 209 | | | | | 290 | | | | | 295 | | | | | | 300 | |
| 211 | atg | tcc | tgc | aag | act | tct | ggc | tac | acc | ttt | act | agg | tac | acg | atg | cac | 961 |
| 212 | Met | Ser | Cys | Lys | Thr | Ser | Gly | Tyr | Thr | Phe | Thr | Arg | Tyr | Thr | Met | His | |
| 213 | | | | | 305 | | | | | 310 | | | | | | 315 | |
| 215 | tgg | gta | aaa | cag | agg | cct | gga | cag | ggt | ctg | gaa | tgg | att | gga | tac | att | 1009 |
| 216 | Trp | Val | Lys | Gln | Arg | Pro | Gly | Gln | Gly | Leu | Glu | Trp | Ile | Gly | Tyr | Ile | |
| 217 | | | | | 320 | | | | | 325 | | | | | | 330 | |
| 219 | aat | cct | agc | cgt | ggt | tat | act | aat | tac | aat | cag | aag | ttc | aag | gac | aag | 1057 |
| 220 | Asn | Pro | Ser | Arg | Gly | Tyr | Thr | Asn | Tyr | Asn | Gln | Lys | Phe | Lys | Asp | Lys | |
| 221 | | | | | 335 | | | | | 340 | | | | | | 345 | |
| 223 | gcc | aca | ttg | act | aca | gac | aaa | tcc | tcc | agc | aca | gcc | tac | atg | caa | ctg | 1105 |
| 224 | Ala | Thr | Leu | Thr | Thr | Asp | Lys | Ser | Ser | Ser | Thr | Ala | Tyr | Met | Gln | Leu | |
| 225 | 350 | | | | | 355 | | | | | 360 | | | | | 365 | |
| 227 | agc | agc | ctg | aca | tct | gag | gac | tct | gca | gtc | tat | tac | tgt | gca | aga | tat | 1153 |
| 228 | Ser | Ser | Leu | Thr | Ser | Glu | Asp | Ser | Ala | Val | Tyr | Tyr | Cys | Ala | Arg | Tyr | |
| 229 | | | | | 370 | | | | | 375 | | | | | | 380 | |
| 231 | tat | gat | gat | cat | tac | tgc | ctt | gac | tac | tgg | ggc | caa | ggc | acc | act | ctc | 1201 |
| 232 | Tyr | Asp | Asp | His | Tyr | Cys | Leu | Asp | Tyr | Trp | Gly | Gln | Gly | Thr | Thr | Leu | |
| 233 | | | | | 385 | | | | | 390 | | | | | | 395 | |
| 235 | aca | gtc | tcc | tca | gtc | gaa | ggt | gga | agt | gga | ggt | tct | ggt | gga | agt | gga | 1249 |
| 236 | Thr | Val | Ser | Ser | Val | Glu | Gly | Gly | Ser | Gly | Gly | Ser | Gly | Gly | Ser | Gly | |
| 237 | | | | | 400 | | | | | 405 | | | | | | 410 | |
| 239 | ggt | tca | ggt | gga | gtc | gac | gac | att | cag | ctg | acc | cag | tct | cca | gca | atc | 1297 |
| 240 | Gly | Ser | Gly | Gly | Val | Asp | Asp | Ile | Gln | Leu | Thr | Gln | Ser | Pro | Ala | Ile | |
| 241 | | | | | 415 | | | | | 420 | | | | | | 425 | |
| 243 | atg | tct | gca | tct | cca | ggg | gag | aag | gtc | acc | atg | acc | tgc | aga | gcc | agt | 1345 |
| 244 | Met | Ser | Ala | Ser | Pro | Gly | Glu | Lys | Val | Thr | Met | Thr | Cys | Arg | Ala | Ser | |
| 245 | 430 | | | | | 435 | | | | | 440 | | | | | 445 | |
| 247 | tca | agt | gta | agt | tac | atg | aac | tgg | tac | cag | cag | aag | tca | ggc | acc | tcc | 1393 |
| 248 | Ser | Ser | Val | Ser | Tyr | Met | Asn | Trp | Tyr | Gln | Gln | Lys | Ser | Gly | Thr | Ser | |
| 249 | | | | | 450 | | | | | 455 | | | | | | 460 | |
| 251 | ccc | aaa | aga | tgg | att | tat | gac | aca | tcc | aaa | gtg | gct | tct | gga | gtc | cct | 1441 |
| 252 | Pro | Lys | Arg | Trp | Ile | Tyr | Asp | Thr | Ser | Lys | Val | Ala | Ser | Gly | Val | Pro | |
| 253 | | | | | 465 | | | | | 470 | | | | | | 475 | |
| 255 | tat | cgc | ttc | agt | ggc | agt | ggg | tct | ggg | acc | tca | tac | tct | ctc | aca | atc | 1489 |
| 256 | Tyr | Arg | Phe | Ser | Gly | Ser | Gly | Ser | Gly | Thr | Ser | Tyr | Ser | Leu | Thr | Ile | |
| 257 | | | | | 480 | | | | | 485 | | | | | | 490 | |
| 259 | agc | agc | atg | gag | gct | gaa | gat | gct | gcc | act | tat | tac | tgc | caa | cag | tgg | 1537 |
| 260 | Ser | Ser | Met | Glu | Ala | Glu | Asp | Ala | Ala | Thr | Tyr | Tyr | Cys | Gln | Gln | Trp | |
| 261 | | | | | 495 | | | | | 500 | | | | | | 505 | |
| 263 | agt | agt | aac | ccg | ctc | acg | ttc | ggt | gct | ggg | acc | aag | ctg | gag | ctg | aaa | 1585 |
| 264 | Ser | Ser | Asn | Pro | Leu | Thr | Phe | Gly | Ala | Gly | Thr | Lys | Leu | Glu | Leu | Lys | |
| 265 | 510 | | | | | 515 | | | | 520 | | | | | | 525 | |
| 267 | cat | cat | cac | cat | cat | cat | tagtcgac | | | | | | | | | | 1611 |
| 268 | His | His | His | His | His | His | | | | | | | | | | | |

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269                      530
272 <210> SEQ ID NO: 10
273 <211> LENGTH: 531
274 <212> TYPE: PRT
275 <213> ORGANISM: Homo sapiens
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284                      20                      25                      30
287 Gln Ser Pro Ala Ser Leu Ala Val Ser Leu Gly Gln Arg Ala Thr Ile
288                      35                      40                      45
291 Ser Cys Lys Ala Ser Gln Ser Val Asp Tyr Asp Gly Asp Ser Tyr Leu
292                      50                      55                      60
295 Asn Trp Tyr Gln Gln Ile Pro Gly Gln Pro Pro Lys Leu Leu Ile Tyr
296 65                      70                      75                      80
299 Asp Ala Ser Asn Leu Val Ser Gly Ile Pro Pro Arg Phe Ser Gly Ser
300                      85                      90                      95
303 Gly Ser Gly Thr Asp Phe Thr Leu Asn Ile His Pro Val Glu Lys Val
304                      100                     105                     110
307 Asp Ala Ala Thr Tyr His Cys Gln Ser Thr Glu Asp Pro Trp Thr
308                      115                     120                     125
311 Phe Gly Gly Gly Thr Lys Leu Glu Ile Lys Gly Gly Gly Gly Ser Gly
312                      130                     135                     140
315 Gly Gly Gly Ser Gly Gly Gly Gly Ser Gln Val Gln Leu Gln Gln Ser
316 145                     150                     155                     160
319 Gly Ala Glu Leu Val Arg Pro Gly Ser Ser Val Lys Ile Ser Cys Lys
320                      165                     170                     175
323 Ala Ser Gly Tyr Ala Phe Ser Ser Tyr Trp Met Asn Trp Val Lys Gln
324                      180                     185                     190
327 Arg Pro Gly Gln Gly Leu Glu Trp Ile Gly Gln Ile Trp Pro Gly Asp
328                      195                     200                     205
331 Gly Asp Thr Asn Tyr Asn Gly Lys Phe Lys Gly Lys Ala Thr Leu Thr
332                      210                     215                     220
335 Ala Asp Glu Ser Ser Ser Thr Ala Tyr Met Gln Leu Ser Ser Leu Ala
336 225                     230                     235                     240
339 Ser Glu Asp Ser Ala Val Tyr Phe Cys Ala Arg Arg Glu Thr Thr Thr
340                      245                     250                     255
343 Val Gly Arg Tyr Tyr Tyr Ala Met Asp Tyr Trp Gly Gln Gly Thr Thr
344                      260                     265                     270
347 Val Thr Val Ser Ser Gly Gly Gly Gly Ser Asp Ile Lys Leu Gln Gln
348                      275                     280                     285
351 Ser Gly Ala Glu Leu Ala Arg Pro Gly Ala Ser Val Lys Met Ser Cys
352                      290                     295                     300
355 Lys Thr Ser Gly Tyr Thr Phe Thr Arg Tyr Thr Met His Trp Val Lys
356 305                     310                     315                     320
359 Gln Arg Pro Gly Gln Gly Leu Glu Trp Ile Gly Tyr Ile Asn Pro Ser
360                      325                     330                     335
363 Arg Gly Tyr Thr Asn Tyr Asn Gln Lys Phe Lys Asp Lys Ala Thr Leu

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